

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US03/06380

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : G01N 33/48, 33/53, 33/555, 33/567

US CL : 435/7.24; 436/63

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
U.S. : 435/7.24; 436/63

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
Please See Continuation Sheet

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	YASUKO et al. Degranulation of eosinophils by IgG antibody to Candida antigen.	1-5
—	Japanese Journal of Allergology. 1999, Volume 48, Number 5, pages 546-553, see	
Y	english abstract.	6
Y	OHASHI et al. Sulochrin Inhibits Eosinophil Degranulation. J. Antibiot. 1997, Volume 50, Number 11, pages 972-974, see abstract.	6
Y	WO 00/65341 A1 (MAYO FOUNDATION FOR MEDICAL EDUCATION AND RESEARCH) 02 November 2000 (02-11-00), see entire document.	6

☐ Further documents are listed in the continuation of Box C.

☐ See patent family annex.

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search

17 June 2003 (17.06.2003)

Name and mailing address of the ISA/US

Mail Stop PCT. Attn: ISA/US
Commissioner for Patents
P.O. Box 1450
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Box I Observations where certain claims were found unsearchable (Continuation of Item 1 of first sheet)

This international report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claim Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claim Nos.:
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
3. ☐ Claim Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of Item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:
Please See Continuation Sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.: 1-6

Remark on Protest

☐
☐

The additional search fees were accompanied by the applicant's protest.

No protest accompanied the payment of additional search fees.

BOX II. OBSERVATIONS WHERE UNITY OF INVENTION IS LACKING

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1. In order for all inventions to be examined, the appropriate additional examination fees must be paid.

Group 1, claim(s) 1-6, drawn to methods of identifying an inhibitor of fungus-induced eosinophil degranulation.

Group 2, claim(s) 7-14, drawn to method of identifying a fungal component that induces eosinophil degranulation.

Group 3, claim(s) 12-22, drawn to methods of identifying an inhibitor using cells from a chronic rhinosinusitis patient.

Group 4, claim(s) 23-31, drawn to a method of identifying a factor that induces eosinophil fungus attack using cells from a chronic rhinosinusitis patient.

Group 5, claim(s) 32-38, drawn to a method of identifying an inhibitor of a T cell response to fungus using cells from a chronic rhinosinusitis patient.

Group 6 claim(s) 39-42, drawn to method of identifying a fungal antigen that induces a T cell response to fungus using cells from a chronic rhinosinusitis patient.

Group 7, claim(s) 43-50, drawn to a method for identifying a compound that inhibits an eosinophilic response using animals.

Group 8, claim(s) 51-58, drawn to a non-human animal or population thereof comprising an eosinophilic response induced by administration of a fungal antigen.

The inventions listed as Groups 1-8 do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons:

The technical feature of Group 1 is the observation that fungal antigens induce eosinophil degranulation. This technical feature is anticipated by Yasuko et al *Japanese Journal of Allergology, 48(5):546-553, 1999) see abstract provided.

The technical feature of Group 2 is using eosinophilic degranulation as a means to screen for fungal factors that induces eosinophil degranulation.

The technical feature of Group 3 is a means to identify inhibitors of eosinophil fungus attack using cultured cells from a chronic rhinosinusitis patient.

The technical feature of Group 4 is a method to identify a factor that induces eosinophil fungus attack using cells from a chronic rhinosinusitis patient.

The technical feature of Group 5 is a method of identifying an inhibitor of a T cell response to fungus using cells from a chronic rhinosinusitis patient.

The technical feature of Group 6 is a method of identifying a fungal antigen that induces a T cell response to fungus using cells from a chronic rhinosinusitis patient.

The technical feature of Group 7 is a method for identifying a compound that inhibits an eosinophilic response using animals.

The technical feature of Group 8 is a non-human animal or population thereof comprising an eosinophilic response induced by administration of a fungal antigen.

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The technical feature of Group 1, require eosinophilic degranulation induced by a fungal factor, Groups 3-8 do not possess eosinophil degranulation in the method steps and as such lack the same technical feature of Group 1. Group 2, lacks unity with Group 1, because the technical feature of Group 1 is anticipated by the art and therefore not "special" within the meaning of PCT Rule 13.2 because it does not provide for a contribution that the claimed invention makes over the prior art.

Continuation of B. FIELDS SEARCHED Item 3:

MEDLINE, WEST, EMBASE, DERWENT.

SEARCH TERMS: EOSINOPHIL(S), DEGRANULAT\$, MAJOR BASIC PROTEIN, MBP, NEUROTOXIN, ALTERNARIA, CANDIDA, ASPERGILLUS, CLADISPORIUM, INHIBIT\$, REDUCE, ELIMINATE.